

Certified Wood Stoves

23



A DDES Customer Information Bulletin



King County Department of Development and Environmental Services
900 Oakesdale Avenue Southwest Renton, Washington 98055-1219

<http://www.metrokc.gov/ddes>

Frequently Asked Questions

King County DDES has created customer information bulletins to inform the general public about the effect of codes and regulations on their projects. These bulletins are not intended to be complete statements of all laws and rules and should not be used as substitutes for them. If conflicts and questions arise, current codes and regulations are final authority. Because the codes and regulations may be revised or amended at any time, consult King County staff to be sure you understand all requirements before beginning work. It is the applicant's responsibility to ensure that the project meets all requirements of applicable codes and regulations.

Installation requirements for certified wood stoves and other solid fuel burning appliances

This bulletin responds to questions about installing and using solid fuel burning appliances, including the following:

- ◆ Airtight stoves
- ◆ Fireplace stoves
- ◆ Room heaters
- ◆ Factory-built fireplaces
- ◆ Fireplace inserts

The King County Board of Health has found that the use of wood stoves and other solid fuel burning heating devices is responsible for a significant portion of atmospheric pollutants during winter months. These pollutants are linked to various human diseases. Current laws regulating wood stoves have already been effective in reducing atmospheric emissions. However, additional regulations, authorized by state law, are necessary to further reduce particulate emissions. To protect the health of the people of King County, Title 16 of King County Code (K.C.C.) authorizes the Board of Health to develop a strict, comprehensive, effective, and enforceable system to control the sale and use of wood stoves within King County.

Note: As of January 7, 1992, it is illegal to install uncertified wood stoves in new or existing buildings (RCW 70.94.551).

Frequently Asked Questions

Before purchasing a new, certified wood stove, read the Washington State Clean Air Act of 1991 and the “*Focus*,” information on clean air distributed by the King County Cooperative Extension Service (206-296-3425). Some insurance companies require proof of inspection for pre-existing wood stoves.

Permit requirements

Before installing any certified solid fuel burning appliance, the owner or contractor must obtain a Mechanical Permit from the King County Department of Development and Environmental Services, 900 Oakesdale Avenue Southwest, Renton, Washington 98055-1219, telephone 206-296-6600.

To obtain a Mechanical Permit, you must provide the following:

- ◆ Legal description of the property and/or property tax account number, and the address
- ◆ Owner’s name, address, and phone number
- ◆ Type and model number of appliance
- ◆ BTUs of appliance, if available
- ◆ Copy of contractor’s or installer’s license, if applicable

A fee must be paid at the time of application. Make checks payable to the King County Office of Finance. Please call for current fees.

Inspection required —where to call

The owner’s copy of the manufacturer’s installation must be available to the inspector at the time of inspection. After the appliance is installed, but before it is used, the owner must call 206-296-6635 for inspection. Please leave information regarding where you may be contacted between 7:30 and 8:30 a.m. The inspector will call and arrange for an appointment with you at the site. Please note the following requirements from the Washington State Ventilation and Indoor Air Quality Code (VIAOC), Sections 402.2, 402.3, and 402.4.

General requirements for solid fuel burning appliances and fireplaces

Solid fuel burning appliances must be provided with the following (per Section 402.2 of the VIAQC):

- ◆ Tight-fitting metal or ceramic glass doors.
- ◆ A source of primary combustion air from outside the structure, connected to the appliance as per manufacturer’s specification.
- ◆ The air inlet shall originate at a point below the firebox.
- ◆ The duct shall be 4 inches or more in diameter, may not exceed 20 feet in length, and must be installed according to manufacturer’s instructions.

If these conditions are not met, the appliance and the manufacturer’s recommended combustion air supply, as an installed unit, shall be certified by an independent testing laboratory to have passed Test No. 11- Negative Pressure Test, Section 12.3, of Underwriters’ Laboratory of Canada 5627-M1984 “*Space Heaters for Use with Solid Fuels*,” modified per V.I.A.Q.C. Section 402.2.2.

Exception: Combustion air may be supplied to the room in which the solid fuel burning appliance is located, rather than using direct ducting, provided that one of the following conditions is met:

- ◆ The solid-fuel-burning appliance is part of a central heating plant and is installed in an unconditioned space in conformance with the Uniform Mechanical Code.
- ◆ The solid fuel-burning appliance is installed in existing construction directly on a concrete floor or surrounded by masonry materials as in a fireplace.

Frequently Asked Questions

Fireplaces must be provided with each of the following, per Section 402.3:

- ◆ Tightly fitting flue dampers operated by a readily accessible manual or approved automatic control. Exception: Fireplaces with gas logs shall be installed in accordance with Uniform Mechanical Code Chapter 901.
- ◆ An outside source for combustion air ducted into the firebox. The duct shall be at least 6 square inches, and shall be provided with an operable outside air duct damper.
- ◆ Site-built fireplaces shall have tight-fitting glass or metal doors, or be approved to minimize back drafting. Factory-built fireplaces shall use doors listed for the installed appliance. See Section 402.3, V.I.A.Q.C.

Masonry heaters shall be approved by the Department of Ecology and shall contain both of the following, per Section 402.4, V.I.A.6.C:

- ◆ Primary combustion air ducted from the outside of the structure to the appliance.
- ◆ Tight fitting ceramic glass or metal doors. Flue damper, when provided, shall have an external control and when in the closed position shall have a net free area of not less than five percent of the flue cross sectional area.

Installation requirements

King County Board of Health Code 16.12.010 outlines the following requirements for installing wood stoves and similar heating devices:

- ◆ No wood stove shall be permitted for use as the sole source of adequate heat in any new or remodeled dwelling or structure.
- ◆ All certified wood stoves installed in any dwelling must be approved by an independent testing laboratory to ensure that the units meet all applicable portions of the Underwriters' Laboratory testing requirements for safety. If the wood stove includes a catalytic combustor, it must be warranted to meet or exceed the requirements of 40 CFR Part 60 Subpart AAA as of July 30, 1991. The Board finds that durability and safety of the product are directly related to emission from the wood stoves.
- ◆ The installation or sale for use in King County by any person of any uncertified wood stove is prohibited.
- ◆ Any person responsible for the operation of a wood stove must ensure that the fuel is covered in a manner to stop rain or other moisture sources from wetting the fuel and that sufficient airflow is allowed around the fuel to allow it to season (dry). The Director may establish guidelines to assist regulated parties in complying with this rule.
- ◆ As provided by RCW 70.94.477 and associated regulations, fuel for all wood stoves must be only untreated wood or lumber with a moisture content of 20% or less, newsprint for the purpose of starting a fire only, and products manufactured solely for fuel. All other materials including, but not limited to, treated wood, plastics, garbage, plywood, particle board, rubber products, animal carcasses, asphalt products, waste petroleum products, paints, and chemicals are prohibited from being burned in a wood stove or fireplace.
- ◆ No wood with a moisture content greater than 20% moisture may be sold by a retail seller of firewood unless a sales receipt is issued to the consumer which contains the name, address, and telephone number of the seller and a notice, as follows:

Frequently Asked Questions

UNSEASONED FIREWOOD, MOISTURE CONTENT EXCEEDS 20%; ATTEMPTS TO BURN WILL RESULT IN EXCESS SMOKE AND CREOSOTE FORMATION. IT IS ILLEGAL TO BURN WOOD UNTIL DRIED TO 20% OR LESS MOISTURE CONTENT.

Additional suggestions

Please observe the following warnings in order to install and use your pellet, wood, or coal burning stoves and fireplace inserts safely:

- ◆ All appliances must be used in the precise manner described by the manufacturer.
- ◆ Follow the manufacturer's instructions regarding location of the unit.
- ◆ Do not place combustibles within the specified clearances.
- ◆ The operation of a unit in accordance with the manufacturer's instructions and code requirements does not guarantee the safety of the unit. King County is not able to warrant or guarantee that your solid fuel burning appliance is safe from danger or free of risk.
- ◆ Check on current air quality standards. Call 1- 800-595-4341 for information on burn bans.

Mobile homes

Permits and inspections for the installation of solid fuel burning appliances in mobile homes are handled through the Washington State Department of Labor and Industries, Construction Compliance Section.

Call 206-248-6630 for mobile homes. Only appliances tested and listed for use in mobile homes may be installed.

Other bulletins and telephone numbers that may be helpful

Bulletin 1	Building and Development Permit Phone Numbers
Bulletin 5	Tenant Improvements
Bulletin 6	Working with Contractors
Bulletin 8	Commercial/Multi-family Building Permits
Bulletin 9	Obtaining a Residential Building Permit
Bulletin 21	Sensitive Areas Review
Bulletin 27	Energy Codes

206-296-6600	Department of Development and Environmental Services
206-296-6635	24-hour Inspection Request Line
206-296-3425	King County Cooperative Extension Service



King County complies with the Americans with Disabilities Act (ADA). If you require an accommodation to attend a meeting (two weeks notice) or require this information in Braille, audiocassette, or large print, please call 206-296-6693 or TDD 206-296-7217.